

REMARKS/ARGUMENTS

The specification has been amended in several pages as requested by the Examiner to properly identify the BAYTRON P™ trademark.

Claim 6 has been objected to because allegedly there are two versions in the case. This application was recently assigned to me and I am aware of only one version of Claim 6, namely that presented above. If there is another version, the Examiner is kindly requested that it be forwarded to the undersigned by mail or facsimile. It is believed that if there are multiple Claim 6's, they all have the same scope, that is, the recitation of Formula II and its definition shown above.

Claims 13-16 have been cancelled for reasons noted below.

Rejection Under 35 U.S.C. §112(2)

Claims 14 and 15 have been rejected as being indefinite for the recitation of "other hydrophilic cellulosic derivatives". Those claims have been cancelled thereby obviating the rejection.

Rejections Under 35 U.S.C. §102(b)

Claims 1, 4, 6-8, 11, 13, 15, and 17-19 have been rejected as anticipated by WO 99/05687 (Wessling). In addition, Claims 1-5, 7, 8, 10, 11, 13, 15, and 17-19 have been rejected as anticipated by EP 1,003,179 (Cloots et al.). Still again, Claims 1-5, 7-13, 15, and 17-19 have been rejected as anticipated by U.S. Patent 5,391,472 (Muys et al.). As far as they apply to claims presently in this application, these rejections are respectfully traversed.

Each rejection will be considered in turn.

1. Rejection over Wessling

U.S. Patent 6,632,380 (Wessling) is the English language equivalent to WO 99-05687 so reference will be made to its text in any arguments presented below.

Claim 1 has been amended to incorporate the subject matter of cancelled Claim 16 so that the binder is gelatin or a gelatin derivative. Wessling fails to describe antistatic compositions comprising gelatin or a gelatin derivative as the binder, so it is not anticipatory of amended Claim 1.

2. Rejection over Cloots et al.

Similarly, Cloots et al. fails to describe antistatic compositions containing gelatin or a gelatin derivative as the binder. Thus, it is not anticipatory of Applicants' claimed invention.

3. Rejection over Muys et al.

Muys et al. likewise fails to describe antistatic compositions containing gelatin or a gelatin derivative as the binder. Thus, it is not anticipatory of Applicants' claimed invention.

For these reasons, the rejections under Section 102 should be withdrawn.

Rejections Under 35 U.S.C. §103

Claims 1, 4, 6-8, 11, 13, 15, and 17-19 have been rejected as unpatentable over WO 99/05687 (Wessling). In addition, Claims 1-5, 7, 8, 10, 11, 13, 15, and 17-19 have been rejected as unpatentable over EP 1,003,179 (Cloots et al.). Still again, Claims 1-5 and 7-19 have been rejected as unpatentable over U.S. Patent 5,391,472 (Muys et al.) or Cloots taken with U.S. Patent 5,910,385 (Gardner et al.). As far as they apply to claims presently in this application, all of these rejections are respectfully traversed.

Each rejection will be considered in turn.

1. Rejection over Wessling

The Office Action contends that it would be obvious to one of ordinary skill in the art to modify the compositions of Wessling with the expectation of reasonable success because Wessling teaches various antistatic compositions and benefits.

Applicants respectfully submit that while Wessling teaches a number of conductive compositions containing conductive polymers and metals, it fails to teach or suggest Applicants' antistatic compositions that include gelatin or a gelatin derivative as the binder. Nothing in Wessling would lead a skilled worker to use only gelatin or a gelatin derivative as the binder despite the many other possible binders (including PVA) suggested in Wessling. None of those binders is in the same class of chemical compounds as gelatin, and most of the binders in Wessling are hydrophobic.

While both aqueous and organic solvent dispersions are described in Wessling, the compositions are intended for coating printed circuit boards. Gelatin-containing compositions would not be acceptable for such use because it is well known that gelatin will readily absorb water and is therefore humidity dependent. Moisture would be "deadly" to printed circuit boards. Moreover, swelling gelatin would "push" conductive particles away from each other, thereby reducing the antistatic effect of those particles in the resulting coating. Thus, it would be going against conventional wisdom to use gelatin or a gelatin derivative, yet that is what is presently claimed in the present application.

Because there is no basis in Wessling to support the obviousness rejection, it is believed that it should be withdrawn.

2. Rejection over Cloots et al.

The Office Action also contends that Applicants' invention would be obvious from the teaching in Cloots et al. because it describes antistatic compositions with conductive particles, and in Example 1, a polymeric latex binder. Similarly to Wessling, however, Cloots et al. fails to suggest any reason for using gelatin or a gelatin derivative as the binder in the antistatic composition. Nothing in Cloots et al. would suggest the need for the specific binder and in fact, except for the one polymer binder in the example, binders are mentioned only in passing (paragraph 0019). The coatings described in Cloots et al. can be used in a variety of ways to coat various substrates. None of these uses would suggest using gelatin or a gelatin derivative as a binder, and in fact it would be contrary to conventional wisdom to use gelatin since it is well known to absorb moisture in high humidity conditions. Thus, a gelatin-containing composition would not be useful in many of the applications described by Cloots et al. and hence the formulations described in that reference are very dissimilar from that claimed in the present application.

For these reasons, the rejection over Cloots et al. should be withdrawn.

3. Rejection over Muys et al. or Cloots et al. with Gardner et al.

The Office Action agrees that Muys et al. and Cloots et al. fail to teach or suggest the use of gelatin or gelatin derivatives as the binders in the antistatic compositions. The Office Action then relies upon Gardner et al. to supply this missing teaching where it suggests polymeric, gelatin, and cellulosic binders.

The rejection over Muys et al. and Gardner is not proper because the teaching of the two references would not be combined by a skilled worker in the art, and that worker would not use the teaching in Gardner et al. to provide compositions containing conductive “particles”.

Muys et al. is correctly described as teaching antistatic compositions comprising some of the conductive materials used in the present invention. Applicants would point out that the conductive materials of Muys et al. are “particles” that are dispersed in the binder, solvent, etc. (see e.g. Col. 3, lines 49-50). Muys et al. uses a latex polymer (not gelatin) to disperse the conductive particles (Col. 3, lines 51-55). Similarly, Applicants’ claimed invention includes “electrically conductive polymer particles” but the binder is very different.

Gardner et al., however, is directed to “solubilized” conductive polyaniline protonic counter-ion complexes that can be dispersed in various film-forming binders, including gelatin and gelatin derivatives (Col. 15, lines 4-34). However, Gardner et al. makes it clear that the conductive complex is not in dispersed form but soluble and provides a continuous phase in the resulting conductive formulation (see e.g. Abstract, Col. 8, lines 14-20). While, Gardner et al. makes it clear that other particles (e.g. magnetic particles) can be dispersed in the formulation, the conductive material itself is a continuous, non-particulate phase.

While the two references are directed to antistatic compositions that can be used in various media, they are directed to different types of formulations, one with conductive particles that require contact among the particles for conductivity (Muys et al.), and the other to a continuous conductive film containing a solubilized film-forming conductive complex (Gardner et al.). In Muys et al., the conductive particles are the important component whereas in

Gardner et al., the conductive film carries other essential components such as magnetic particles. The Muys et al. conductive particles need to be touching for effect whereas the Gardner et al. solubilized complexes form their own conductive matrix irrespective of humidity or other conditions. The uses and formulation requirements of the two references are very different and one skilled in the art would not naturally combine the two teachings.

As pointed out above, the use of gelatin with conductive “particles” is going against conventional wisdom because of the propensity of gelatin to swell in high humidity. With that swelling comes a reduction in conductivity in the composition since the conductive particles are separated from each other. Hence, the prior art (e.g. Muys et al.) uses other non-swellaable binders such as latex polymers with conductive particles. On the other hand, Gardner et al. teaches “solubilized”, non-particulate antistatic compositions wherein the conductive complex is uniformly dissolved throughout the formulation so any swelling of gelatin is not detrimental.

In developing a film-forming antistatic composition containing conductive particles, Applicants might consult the teaching in Muys et al. because it describes conductive particles. However, Gardner et al. does not. Thus, Applicants would not consider the solubilized compositions in Gardner et al. Even if they did, there is no motivation to choose to use gelatin or gelatin derivatives over the vast number of binders suggested in Gardner et al.

The combination of Muys et al. with Gardner et al. makes sense only after one has learned of Applicants’ claimed invention. Thus, only with “hindsight” would the combination of the two teachings make sense because a skilled artisan would not naturally combine them prior to Applicants’ invention.

For these reasons, the rejection over Muys et al. and Gardner et al. is in error and should be withdrawn.

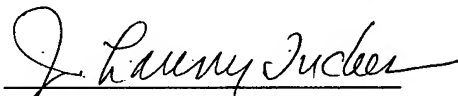
The same arguments are applicable to the combination of Cloots et al. and Gardner et al. While Cloots et al. does not give as much detail about the particulate nature of the polythiophenes, they are the same materials described in Muys et al. Moreover, Cloots refers to the “polythiophene dispersion” used in the examples (page 6, line 35). The Examiner appears to recognize the similarity of the conductive materials in both Muys et al. and Cloots et al. as well. Thus, one could repeat the foregoing arguments and substitute “Cloots et al.” for “Muys et

al." with equal cogency, but for the sake of brevity, they are not repeated here. Applicants consider the reference to the foregoing arguments to be sufficient for rebuttal of the rejection. Thus, the rejection over Cloots et al. and Gardner et al. should also be withdrawn.

In view of the foregoing amendments and arguments, all rejections under Section 103 should be withdrawn.

It is believed that all issues and rejections have been properly considered and overcome. Reconsideration of this patent application is respectfully requested. A prompt and favorable action by the examiner is earnestly solicited.

Respectfully submitted,



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